

or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP § 2142. "Second, there must be a reasonable expectation of success." *Id.* "Finally, the prior art reference (or references when combined) **must teach or suggest all the claimed limitations.**" *Id.* (emphasis added). "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *Id.*

Claim 1 is directed to a method of making a honeycomb structure and requires application of an adhesive to the exterior surface of an elongated tubular material, "the adhesive being a slow cure adhesive that will not fully cure for at least one hour." Claims 2-8 depend from claim 1. Claim 9 is directed to an apparatus for forming a cellular structure in which there is a glue applicator "having a reservoir filled with a slow cure adhesive that requires at least two hours to cure." Claims 10-14 depend from claim 9. Applicant submits that none of the cited references teach or suggest the use of a slow cure adhesive as required by the pending claims.

At page 2 of the Office Action, the Examiner recognizes that Colson "failed to specify whether the adhesive employed was a slow cure adhesive." The Examiner also did not cite Daamen as teaching or suggesting the use of a slow cure adhesive.

At page 4 of the Office Action, the Examiner says with respect to Schnebly "the reference employed a polyester adhesive and while the adhesive appears to be of a slow cure nature, the reference makes no mention of using an adhesive which is retained in an uncured state during the winding and still tacky therein prior to removal from the mandrel, see column 5, lines 42-column 6, line 12." In column 5, lines 42-46 say "a critical aspect of the present invention is the selection of the adhesive. The adhesive is preferably a heat activated copolymer

resin that can be applied at extrusion temperatures of approximately 350°-500°F and then solidified by cooling to room temperature." At column 9, line 58 through column 10, line 57, Schnebly teaches that the apparatus includes an oven 162 into which trays containing stacks of the honeycomb material with adhesive positioned between adjacent layers are placed. The oven is heated to a temperature between 180° to 275°F. "The temperature and pressure are maintained a sufficient period of time to permit the lines of adhesive 18 between the layers 74 to activate and bond with each other so as to adhere adjacent layers of tubular materials 74 to each other. The amount of time would vary depending upon the adhesive selected. For example, the preferred adhesive would require a time of about 15-30 minutes, although the longer the heating time, the great the amount of cross-linking and the more stable the bond achieved." This statement at column 10, lines 12-16, contradicts the Examiner's speculation that "the adhesive appears to be of a slow cure nature". Moreover, Schnebly does not teach wrapping the elongated tubular structure around a collector in a manner to cause the adhesive to be positioned between and bond together overlaying surfaces of elongated material which is specifically required by Applicant's claim 1. Overlying material is not bonded together in Schnebly's process until the stack of material is heated in an oven.

At page 5 of the Office Action, the Examiner cites Corey as teaching the use of either polyester adhesive materials or polyurethane adhesive material where it was known that the polyurethane adhesive material employed had a slow or long cure time therein. The Examiner specifically identifies paragraph 0086 of Corey as containing this disclosure. However, paragraph 0086 of Corey speaks of "glue lines or ultrasonic junctions" never mentioning any specific type of glue. Paragraph 0083 of Corey says "While many of the known glues can be

used, hot-melt adhesives are preferred...This type of adhesive is advantageous because of the ability to be precisely metered through application nozzles, high initial tack, rapid cure to a flexible final state..." Thus, Corey is teaching the use of adhesives that have "rapid cure". There is no teaching or suggestion in Corey to use a slow cure adhesive. Indeed, Corey teaches just the opposite.

What the Examiner has done is to take Applicant's teaching to use a polyurethane slow cure adhesive and then read the disclosure of Corey to use a fast cure polyurethane adhesive as rendering Applicant's claims unpatentable under § 103. However, it is wrong to use Applicant's disclosure as a guide through prior art references, combining the right references in the right way so as to achieve results of the claims in issue. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness. Orthopedic Equipment Co., Inc. et al. v. United States, 702 Fed. Cir. 1005, 1012, 217 USPQ 193, 199 (Fed. Cir. 1983)

Prior to Applicant's disclosure, there was no teaching in the art to use a slow cure adhesive in the manufacture of cellular products. Indeed, Corey taught just the opposite, to use an adhesive having a fast cure. For these reasons, Applicant's claims are patentable over the cited combination of references.

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Reconsideration and allowance are respectfully requested.

Respectfully submitted,

/Lynn J. Alstadt/

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Lynn J. Alstadt
Registration No. 29,362
BUCHANAN INGERSOLL & ROONEY PC
One Oxford Centre
301 Grant Street
Pittsburgh, Pennsylvania 15219

(412) 562-1632

Attorney for Applicant